

Ports and hinterland terminals

**Local transport & hubs** 

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# Development of European hinterland traffics from the perspective of a leading player in the combined traffic

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### Growing world trade as consequence of globalization

Intermodal – preparations for growth

**Tackling the challenges together** 

**Key findings** 



### Logistics providers need to follow their customers - a global presence and the ability to organise intercontinental transports give a competitive edge

Beispiel: Produktionsstandorte eines Kunden in der Automobilindustrie

# 1980 – Focus on Germany Production: Germany: 70% / International: 30%

### **Challenges for logistics**

- Production mainly in Germany
- Very few international productions sites and limited amount of transports between sites

#### 2010 - Global network





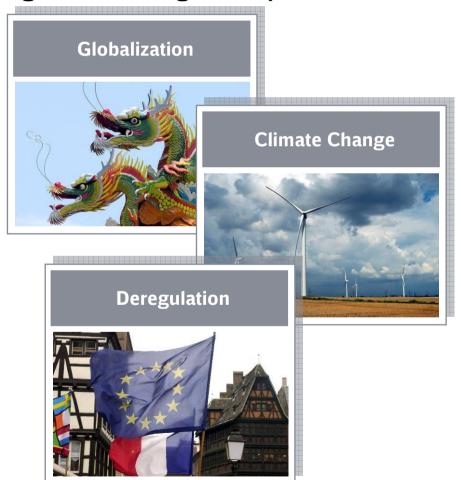
#### **Challenges for logistics**

- Global network of production and warehousing sites
- Transport of components, spare parts and cars
- Demand for logistics services



### DB generates sustainable transport services and ensures that transport growth does not result in greater environmental impact

#### **Megatrends in freight transport market**



Source: Sustainability Report 2007

<u>DB</u>

Excellent freight forwarding and logistics services...

... with a strong rail backbone

100,000

fewer truckloads daily on Europe's roads, and

21,000 tons of  $CO_2$ 

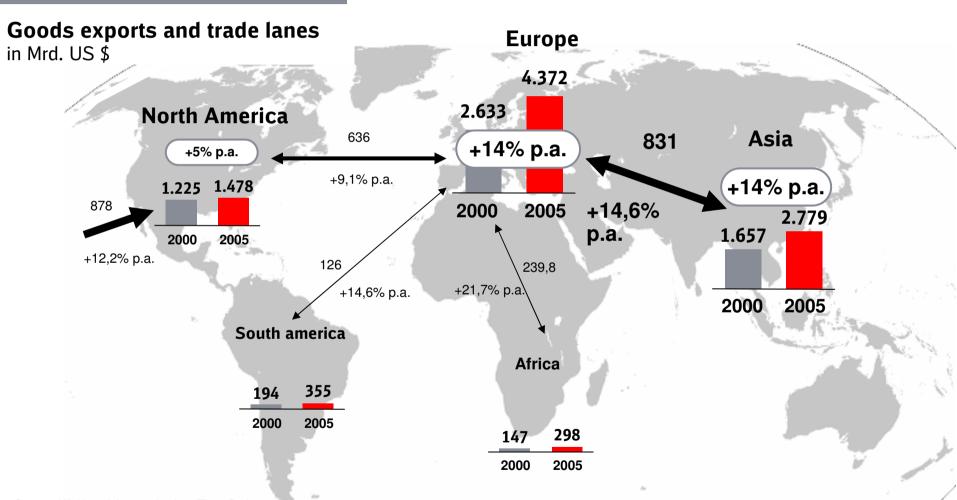
less each day as a result of DB AG rail freight services

33% reduction

in specific energy consumption from 1990 to 2006 on rail freight services



# The international goods exports and transport flows show a very dynamic development



Source: Welthandelsorganisation "Time Series" 2006

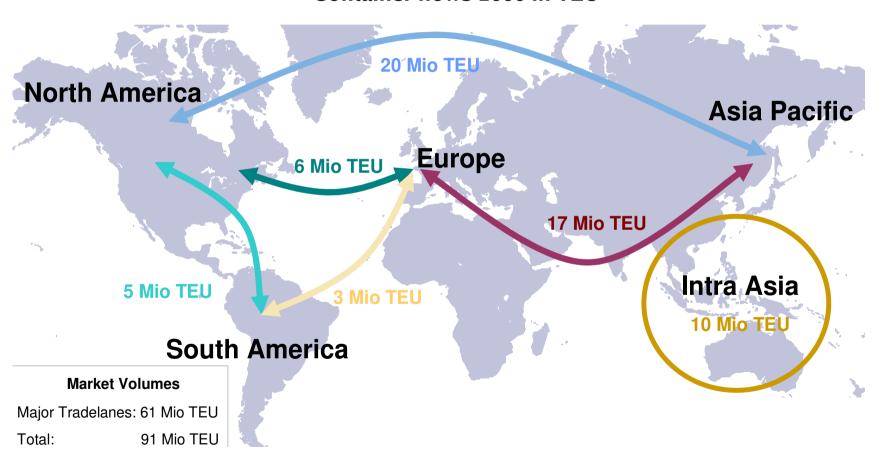
583 - Summe der jeweiligen Exporte zwischen zwei Regionen in 2004

<sup>-</sup> Güterstrom zwischen zwei Regionen (Summe der jeweiligen Exporte) +5% p.a. - Jährliches Wachstum des Gütervolumens zwischen zwei Regionen



### The share of containerized goods increases constantly

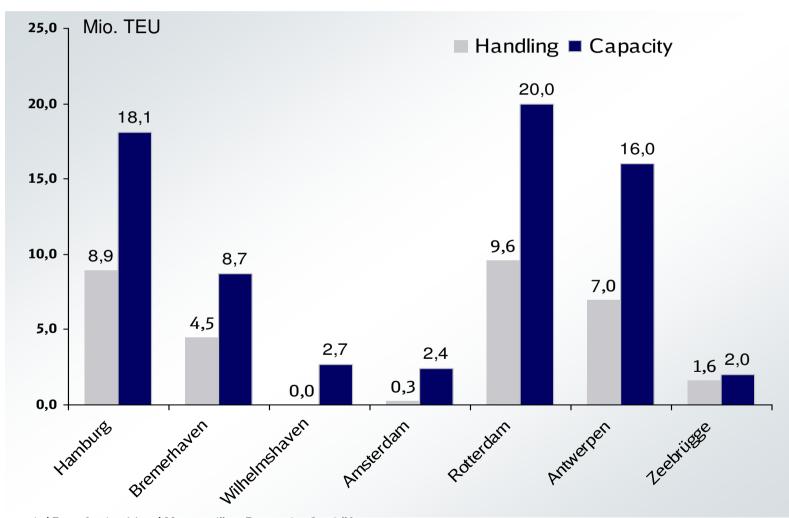
#### **Container flows 2006 in TEU**



Source: CI 2006/2007



# All seaports in the Northern and Western range will strongly increase their capacities until 2015



Source: Uniconsult / Port Authorities / Masterpläne Deutsche Seehäfen



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# The Logistics Division of Deutsche Bahn is successfully offering rail and non-rail products worldwide

Transportation & Logistics - 2007			
External revenues (€ bn)   EBIT (€ mn)   670   Employees ('000)   88,2			88,2
← Rail Freight Transport ← Integrated Logistics − →			
Rail Freight	ntermodal	Land Transport Air/Ocean Freight	Contract Logistics/SCM
		TO SOUNCE CONTRACTOR OF THE PROPERTY OF THE PR	
External revenues (€ bn)	3.9 (+2%)	External revenues (€ bn)	14.0 (+5.9%)
EBIT (€ mn)	217	EBIT (€ mn)	453
Employees ('000)	28.9	Employees ('000)	59.3

Employee figures: average no. of full-time employees Source: 2007 Annual Report



## With more than 2100 national and international trains every week, Intermodal leads the field in European Combined Transport



#### Basic data for Intermodal, 2007

#### **Key statistics for Intermodal:**

Sales revenue on own business responsibility: around 790 million €

Trains per week: more than 2100 (corresponding to ca. 13,300 lorry-loads every day)

■ Load units per year: around 3.1 million

#### **Key competences of Intermodal**

Together with its service partners, the Intermodal business unit offers a pan-European train network and numerous services in the field of Combined Transport.



### Within its intermodal business DB Logistics has four core competencies besides traction

#### **Terminal Ownership**

- Planning and construction
- Define handling technology
- Design terminal IT systems

- Selling transport of single boxes incl. services
- Neutral platform
- Capacity management/ Carrying the utilization risk of trains
- Link between forwarders/ shipping lines and traction companies

Intermodal Transport Operator (ITO)/IMC

#### **Terminal Operation**

- Running terminal operation
- Defining terminal standards
  - Controlling service and operational quality

Intermodal Core Competencies of DB

- Compensate the imbalance of trade flow
- Storage of empty boxes
- Other Services on boxes, incl. repair, cleaning etc.

**Empty Container Depot Services** 



### Providing capacities and high productivities is key to managing growth and securing Intermodal's future success

### Capacities locos and wagons

- Increase of wagon fleet by more than 25% by the year 2012
- Growth in maritime wagons even higher at over 30%
- Dedicated locomotives for the Intermodal business unit



- Europe wide development of terminals
- Container depots (empty & loaded)
- Expansion into new markets such as China



Highly productive systems - Industrialization

- Increasing number of block and shuttle trains
- Flattening of peaks (daily, weakly, seasonal)
- Change to 24/7 operation where possible

Development rail infrastructure

- Only indirect influence on measures for Intermodal
- Articulating specific demand towards infrastructure provider
- Securing the necessary slots

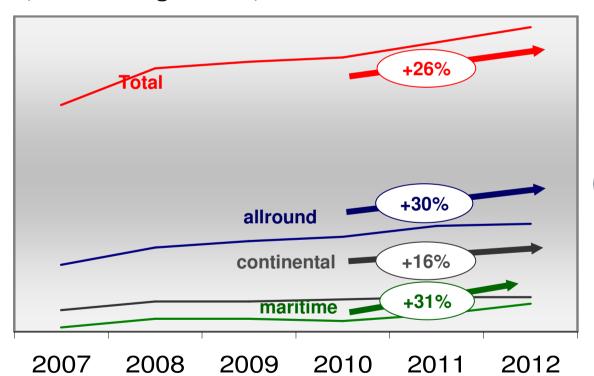


### With its intensive investment programme DB Intermodal prepares for future growth

**Capacities locos and wagons** 

#### **Investment programme wagons until 2012**

(auf Basis Wagenzahlen)



- Intermodal has aligned its investment planning with the high future growth rates.
- The hinterland traffic will double by 2015.
- Maritime wagons will be increased accordingly
- The investments for locos will focus on multi-tension machines apt for cross-border use in Europe

**Source: DB AG** 

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### The Trans-Eurasia Logistics Joint Venture organises and sells container transport on the east-west route

# Trans-Eurasia Logistics – a JV of RZD and DB Russia / CIS St. Petersburg Moscow

 Establishment of possible terminals, including transshipment and depot/repair business for containers

- Organisation and sale of dedicated transport services between Europe and Russia as well as other CIS countries
- Priority cooperation with freight forwarders and possibly big shippers
- Joint Venture acts as agent on a commission basis
- Max. use of the existing resources of the founder companies
- Taking into account the special market structures and the different requirements for logistics services between Russia and Europe



### In order to ensure availability of facilities in the relevant markets, Intermodal is adapting its terminal strategy

**Development of terminal** and depot infrastructure







- DB via participations with ca. 40 locations well positioned in Germany
- Existing and planned expansions are in the process of being realized
- Examples: expansion projects in Duisburg, Cologne, Munich

- DB via participations with ca. 20 18 terminals planned locations in Europe
- Long-term secure access to terminals especially in bottleneck areas
- Country-specific measures are being undertaken

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- Participation in the fast growing Chinese market for container rail freight
- Establishment of the successful European model for hinterland transport to the Asian seaports



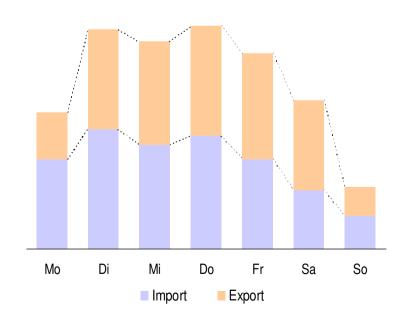
An industrialization of the systems – 24 h / 7 days – requires continuous measures along the chain up to the consignor / consign<u>ee</u>

Highly productive systems - industrialization

#### **Example of a port terminal**

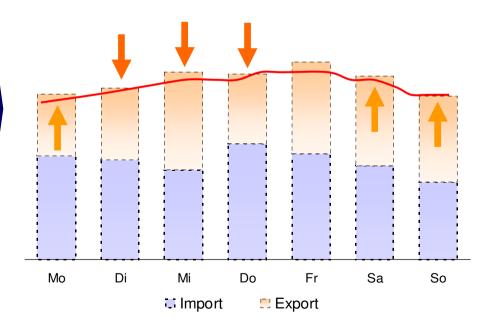
#### **Status quo of trains**

- Perceivable peaks on Tue Wed Thu
- Volumes strongly drop away towards weekends



#### **Smoothing by extension of service hours**

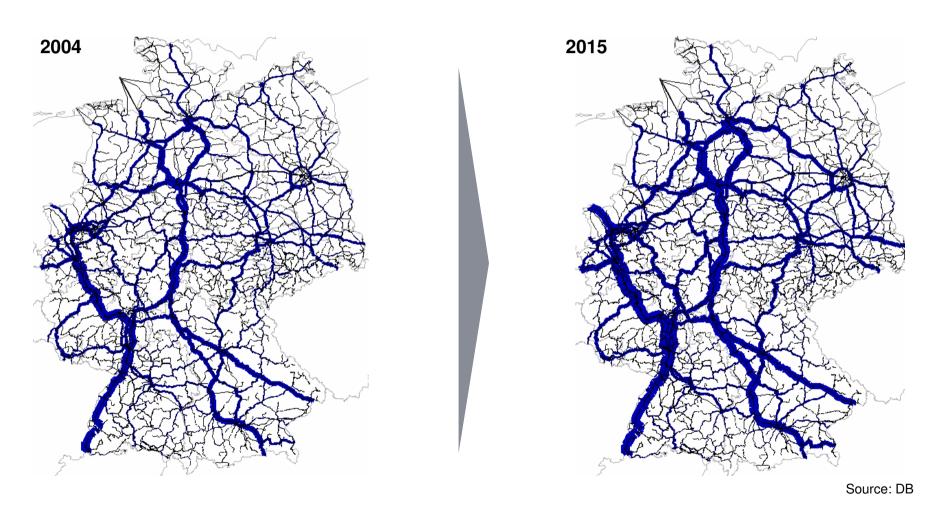
 Pickup and delivery of containers in the hinterland after 16:00 h on weekdays as well as weekends





## The expected growth by 2015 will mainly occur on the main corridors

Development rail infrastructure



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### DB Intermodal offers rail transport all over Europe and to South East Europe in particular

Deutschland	RAILION DB Logistics
Österreich	Rail Cargo Austria
Ungarn	GYSEV Raaberbahn
Slowenien	Slovenske železnice
Serbien	JII



Partners in railway business

The Operators, which can offer every service the customer want







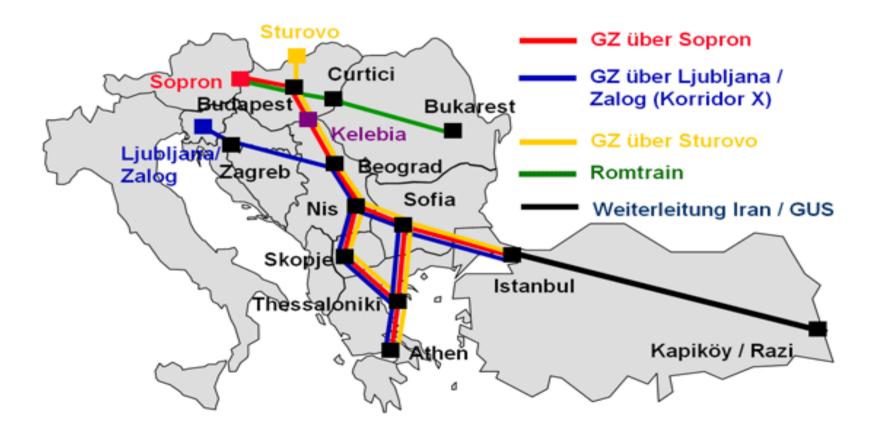






## Together with our customers and partners we are developing concepts and logistics solutions

Schenker Railog - a 100% subsidiary of Stinnes AG - offers its customers various connections to South-East-Europe





**Growing world trade as consequence of globalization** 

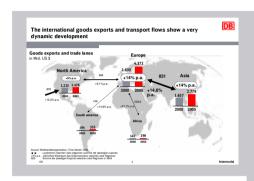
Intermodal – preparations for growth

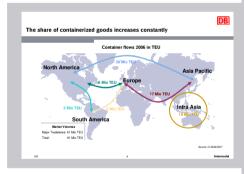
Tackling the challenges of hinterland transport

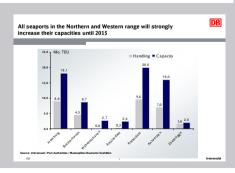
**Key findings** 



# To cope with increasing transport demand to/from the hinterland DB Intermodal has specific concepts and initiattives







Selection of hinterland measures

1 Hubs and Turntables

2 Port Conferences

3 Improved Dataflow

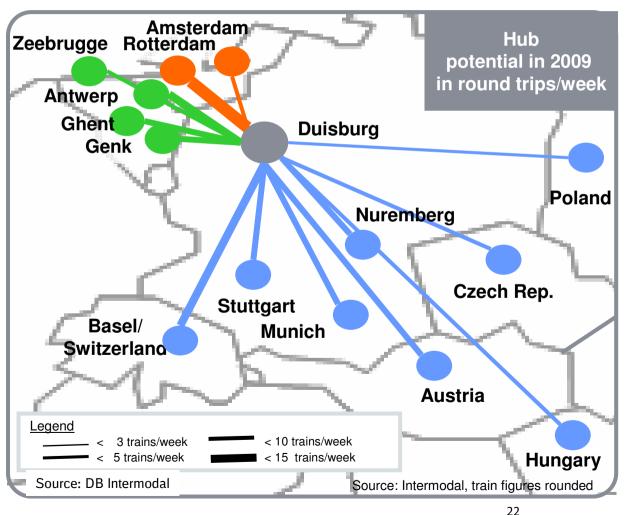
**4** Extended Gate



### The introduction of hubs in the hinterland are an effective method to connect seaports and to bundle continental and maritime volumes

**Hubs & Turntables** 

Hub potential in 2009 in round trips/week, incl. regional volume for a hub located in Duisburg



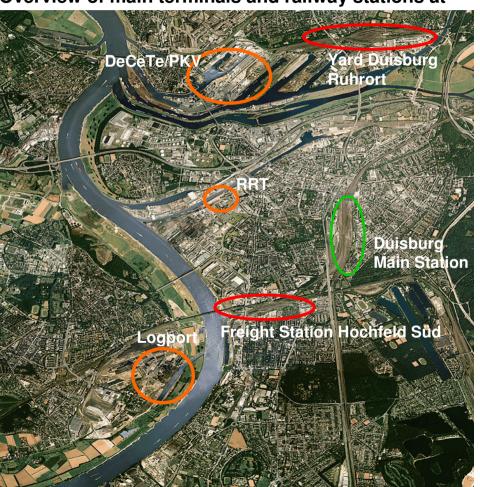
- Benefit to seaport terminals:
   "mixed" loads on feeders for hub trains
- The hub improves services to minor ports and regions close to the port area, plus Intermodal presence in the ports
- The hub's bundling feature of maritime and continental volumes is new to the market
- New range of services now available to shipping companies that demand alternative products



### Several measures are necessary to develop the logistics site Duisburg as a central hub for the Western ports

**Hubs & Turntables** 





#### **Measures**

- Utilization and development of available terminal capacities and rail links (transfer traffic) between main economic regions
- Consolidation of maritime and continental shipments
- Expansion of destinations via hub concept

#### **Necessary infrastructure expansion**

- Planned enlargement handling capacity of PKV-terminal from approx. 170.000 to 250.000 load units by the end of 2008
- 2. Hub development via new building of gateway terminal with a planned handling capacity of 120.000 load units p.a. by 2012



### In order to tackle the difficulties of hinterland connections in the best possible way, the Port Conferences were introduced

**Port Conferences** 

#### Seaport to hinterland transport

- the starting situation
- Insufficient planning of container shipments by rail
- High quota of rebooked containers
- Train capacity could be utilised better
- Unnecessary handling operations
- Unreliable planning of deliveries at the receiving end







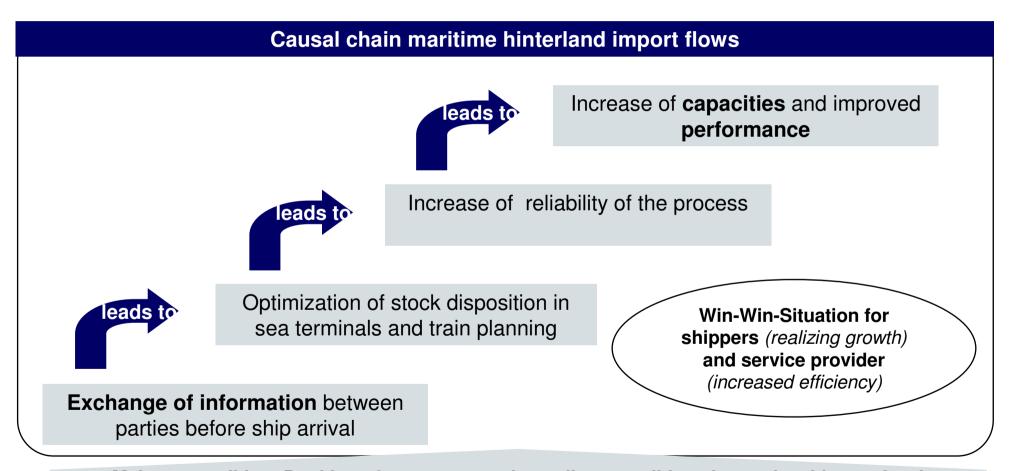
#### **Port Conferences**

- Intensive dialogue with top decisionmakers in the port community
- Neutral platform for constructive dialogue
- Initiate cooperation between all players along the entire transport chain
- Presentation of Best Practice examples
- Get a joint understanding of the challenges ahead



## Early exchange of information leads to increase of capacities and improved performance

Improved Dataflow

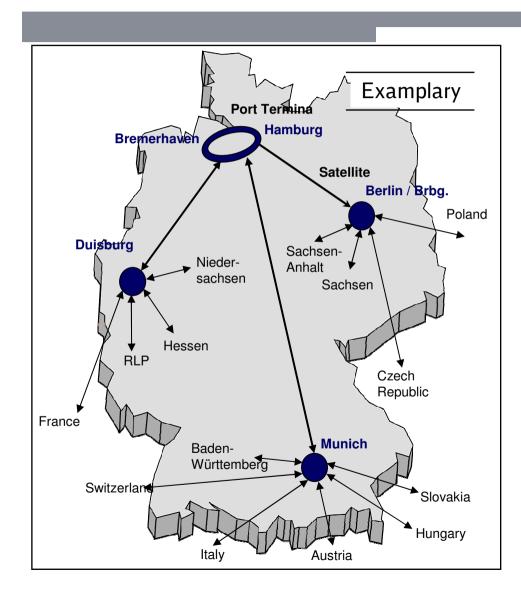


Main precondition: Booking of transports at the earliest possible point on the shippers level

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### The Extended Gate Model sets up satellite terminals in the hinterland and speeds up the port processes



**Extended Gate** 

#### **Extended Gate Modell functions:**

- Setting up dedicated terminals for ports in the hinterland ("satellite terminals")
- Import: Immediate loading of containers onto specific shuttle trains to the satellites
- Export: Formation of specific block trains to docks or even ships
- Further processing of containers in the satellites:
  - Storage
  - Customs (Import / Export)
  - Pre carriage and on carriage by train and truck



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Intermodal – preparations for growth

**Tackling the challenges of hinterland transport** 

**Key findings** 

### **Key findings**





- 1. Strongly growing transport volumes due to globalization doubling of hinterland traffics until 2015 become a challenge for European economies.
- 2. The rail mode and more specifically the combined traffic will play a major role to tackle this challenge.
- 3. Providing capacities and high productivities become a strategic competitive advantage.
- 4. Intermodal as market leader has prepared itself internally as well as on a cross company level for the future growth
- 5. The European / German success model "containers on rail" can be successfully exported to markets beyond Europe.





Thank you very much for your attention!